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Genetic Politics: The Treaty of Pacific Grove

Pacific Grove, California. The much-publicized conference on genetic engineering, held here last month, was a remarkable demonstration both of self-regulation by the scientific community and of practical politics.

The self-regulation is tangible enough — the controls agreed to at the meeting will require expensive modifications to many laboratories, and temporary deferral of some potentially important experiments. The practical politics came in because of the realization that unless the meeting came up with strong recommendations which show that the biologists are capable of regulating themselves, others — such as legislative committees — would be only too willing to do it for them.

It was no small achievement, however, that the meeting ended in virtual unanimity on the proposed controls. In fact, it seemed at times to be headed for a disastrous split.

The background to the affair is by now well known. In July last year, a committee of the National Academy of Sciences, headed by Paul Berg of Stanford and David Baltimore of MIT, called for a world-wide suspension of research involving certain types of genetic manipulation experiments because of potential health hazards. The experiments consist, in short, of transplanting genes from various organisms and higher animals into viruses and bacteria, in such a manner that they will be copied every time the virus or bacteria replicates. The worry, however, is that the genetically modified organisms may possess unpredictable biological properties, and could pose a serious health hazard if they escape from the laboratory environment.

Originating as it did from scientists actively involved in the research, and coming before any known threat to health

had arisen — rather than after the event — the proposed moratorium was an unprecedented event. And the conference, which was called to evaluate the risks and to decide under what circumstances, if any, the experiments should be carried out, was no less remarkable.

The genetic manipulation technique offers a means for solving some important problems in understanding how genes work, and it also holds potential practical benefits, such as large-scale culturing of bacteria equipped with human genes responsible for promoting the synthesis of insulin.

In the face of such possibilities, it is surprising that the Berg committee's call for a voluntary moratorium seems to have been universally respected, but it is doubtful that it could have been carried on indefinitely. Yet the risks that may arise from the experiments are unknown, and possibly serious.

Moreover, the history of laboratory accidents involving hazardous micro-organisms doesn't leave much room for comfort on the adequacy of conventional protection measures. There have been an estimated 5000 laboratory-acquired infections over the past 30 years, one third of them in laboratories equipped with special

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In Brief

The Nixon proposal to provide nuclear reactors to Israel and Egypt is officially still under consideration, but according to a top State Department official it's dead. Israel, he said, refuses to accept inspection of its big reactor at Dimona, and Egypt says it can get a better deal, with only flimsy inspection requirements, from France.

With the National Heart, Blood Vessel, Lung and Blood Act of 1972 due to expire June 30, Congress will be scrutinizing that legislation in a series of hearings next week in the Senate and at the beginning of April in the House. An excellent background paper on the implementation of the legislation, "Some Questions about the Heart and Lung Research Act," has been prepared by Washington Study Group of the University of California, San Francisco. Copies available without charge. Address: 1828 L St., N.W., Suite 700, Washington, D.C. 20036. Telephone: (202) 223-2361.

Most often described as man's best friend, dogs are redesignated as "special items of equipment used to increase the effectiveness of USAF Security Policemen" in an Air Force directive on Military Working Dogs.

Is Technology Assessment a Crime?

A little-known New York City statute raises the possibility that practitioners of the booming profession of technology assessment may be in violation of the law in that jurisdiction, and subject to up to three months' imprisonment and a \$500 fine.

As has recently been brought to SGR's attention, the city's Code of Criminal Practice prohibits the acceptance of payment for predicting the future, so as "to prevent the ignorant and the gullible as well as the curious from being ensnared by the guiles and fantasies of those who profess to be able to 'crystal gaze' as to the course of future events."

Under Congressional Edict, NCI Starts Nutrition Study

Though gaining in respectability, the theory that nutrition may have a role in both the causation and treatment of cancer has received little credence in orthodox scientific and medical circles. But last year, over the protests of the National Cancer Institute, Congress decreed that NCI should examine the subject, and now there is a bit of movement in that direction.

NCI has announced that on March 26, it will hold a Workshop on Diet and Nutrition in the Therapy and Rehabilitation of the Cancer Patient. The meeting, which is open to the public, will be held in Building 31, Room 11A10, starting at 8:30 a.m.

In addition, NCI has put out bids for a contractor to carry out a literature search on the subject, and is

planning, in conjunction with the American Cancer Society, to hold another workshop in May.

According to NCI officials, some \$6 million is budgeted for the studies, but a program cannot be formulated until an advisory group has been selected and assembled. That task is now in the works, but for reasons that remain mysterious to outsiders, it will not be until May or June, according to NCI, that the advisory group will meet.

According to an announcement in the *Federal Register*, requests for additional information should be sent to Dr. Gio Gori, deputy director, Division of Cancer Cause and Prevention, National Cancer Institute, Bethesda, Md. 20014. Telephone: (301) 496-6616.

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confinement facilities. Moreover, just two years ago, two people died in London as the result of a smallpox outbreak which originated from laboratory experiments.

The conference, therefore, seemed to be faced with an inescapable dilemma, namely, how could the moratorium be lifted in the face of unpredictable health hazards, or, alternatively, how could it be maintained in the face of obvious desire on the part of scientists to get on with their research?

For a time it seemed that the meeting would end up hopelessly split on those issues. Though few participants openly advocated pushing ahead regardless, some indicated privately that they felt the potential benefits justified lifting the moratorium as speedily as possible. The nearest the meeting came to an open division of opinion was during discussion of a working paper which proposed various levels of safety procedures that should be imposed for different types of experiments.

After an hour or so of heated discussion, during which Nobel Laureates James Watson and Joshua Lederberg both advocated lifting the moratorium, Sydney Brenner, a molecular biologist at the Medical Research Council Laboratory, Cambridge, England, suddenly brought the discussion up short with an eloquent statement in which he noted that "there is this undercurrent, that there are people here who feel that there will be a negotiable set of compartments, and that any particular compartment will comply with their local conditions. I am utterly opposed to that way of thinking." He went on to state that if the meeting simply issued a licence for people to return to their laboratories and continue their research, it would "utterly have failed."

Fortunately, however, such a fundamental disagreement was avoided as the result of a crucial session, conducted by Brenner. At that session, it was agreed that if genetic

manipulation experiments were conducted on viruses and bacteria genetically disabled in such a manner that they would be incapable of surviving outside the laboratory environment, there would be virtually no danger of their infecting man. By what Brenner referred to as "old-fashioned steam genetic engineering," such modified strains could be produced in a matter of weeks, and made widely available, it was suggested.

Once that fact became evident, it was suddenly much easier to reach agreement. In the end, a statement of principles which recommended that the potentially more hazardous experiments should be delayed until "safer" viruses and bacteria are available, was agreed to with only two or three participants opposed.

Finally, after considerable discussion, it was agreed that there are some kinds of experiments which should be barred completely. Though they were not specified in detail, they would include such dangerous steps as introducing the genes which code for production of botulinus toxin into bacteria that infect man. There would, however, be little justification for conducting such experiments, except to produce lethal agents for biological warfare, but the prohibition at least demonstrated publicly that the meeting was prepared to declare some research off-limits.

Coming as they do from the scientists who want to do the research, the proposed controls may seem like a classic case of the fox being set to guard the chicken coop. Indeed, a statement distributed at the conference by the radical group Science for the People said that the molecular biology community is incapable of regulating itself — "it is like asking the tobacco industry to limit the manufacture of cigarettes," the statement said.

Nevertheless, the proposed controls are generally regarded as stricter than necessary to protect public health, which is probably a wise move to protect the research from legislatively mandated regulations. —C.N.

House Science Chairman Offers New Policy Bill

Following hearings stretching over five years, which resulted in a 2500-page record embodying the views of scores of witnesses, the House has been presented not with a mouse but an amorphism bearing the impressive title of The National Science Policy and Organization Act of 1975.

Lest anyone take it too seriously, the authors of the bill, Chairman Olin E. Teague (D-Texas) and ranking Republican Charles A. Mosher, Ohio, of the Science and Technology Committee, accompanied the introduction with a caution-laden press release:

"Mr. Teague and Mr. Mosher emphasized that the bill is not considered a final product, nor does it represent a fixed position on their part. They added that the bill is not necessarily a reflection of the views of the Committee or its members."

Appearing on the floor to give his creation a sendoff, Teague further enhanced its prospects with the observation that "the bill is by no means cast in concrete," though it might be speculated that it is encased in that material.

In any case, with the Administration still stirring about the re-organization of White House science advice, though yet to make public any proposals, and Senator Kennedy preparing to repeat last year's passage of his own science policy melange, Teague apparently thought it was time for him to make a move.

The result is a four-part bill, opening with a turgid statement of "National Science Policy" that calls upon the federal government to be attentive to the development and application of science and technology.

Next follows a provision to establish a 5-member Council of Advisers on Science and Technology, whose chairman would be science adviser to the President, if the President so desired.

Then there would be created a cabinet-level Department of Research and Technology Operations that would provide "general supervision and direction" for science and technology agencies throughout the government. The Department would be an orchestrator rather than an operator of existing government R & D programs, all of which would remain where they are. But the possibility is suggested that it could serve as a homebase for newly created functions that do not logically fit into any traditional department or agency. Furthermore, since the oldtime White House science advisory setup was often berated for mixing advocacy and analysis of scientific programs, the advocacy role is clearly assigned to the new Department, while the Council is supposed to serve the President in a disinterested fashion.

Finally, the bill returns to those hoary chimera about valuable scientific and technological information "gathering dust in files" because no one knows its there. "This waste is no longer tolerable," states an analysis issued by Teague and Mosher. To remedy it, they propose the creation of a corporation to collect and disseminate research produced at government expense.

The authors repeatedly emphasize that they have introduced the bill to encourage discussion. There's not much to be said that hasn't already been said, but that will be no impediment to expansion of that 2500-page record.

ERDA Moves for Full Control of Breeder Project

In the face of massive cost overruns on the troubled Liquid Metal Fast Breeder Reactor (LMFBR) project, the Energy Research and Development Administration (ERDA) has quietly moved in the past two weeks to increase its control over the operation. The key step is a request to Congress to scrap a joint government-industry management arrangement for the demonstration breeder reactor plant which will be build in Tennessee, and to replace it with direct ERDA control.

The reason for the move is that cost estimates for the demonstration plant have mushroomed from about \$700 million to \$1.7 billion over the past three years.

Since the project is being jointly financed by the federal government and industry, it originally made sense to establish a mechanism through which each partner can have an equal say in the management. But, in view of the overruns, the government will now be footing the lion's share of the bill, and "continuation and expansion of government financial support require that it have stronger direct management and financial responsibility," an ERDA

announcement states.

Consequently, ERDA has proposed setting up a single management office which would have some industrial representation, but with ERDA maintaining overall control. Since the original management arrangement was established by legislation, Congressional approval for the change is needed.

In addition, ERDA has realigned some staff positions to provide tighter control over the Fast Flux Test Facility (FFTF), a test breeder reactor under construction at Richland, Washington, which is also suffering mammoth cost overruns (SGR Vol. V. No.5). Among other moves, about 15 headquarters staff will soon be transferred to Richland to help supervise the operation directly.

The mounting problems with the LMFBR program have recently drawn heavy sniping from Congress, and the moves to strengthen control over the project are therefore at least partly designed to head off further disapproval from Capitol Hill.

A Psychologist Moves to No. 2 Job at NSF . . .

When Richard Atkinson, a Stanford University psychologist, was recently nominated by President Ford to succeed an aerospace engineer as Deputy Director of the National Science Foundation, joy suffused the usually gloomy ranks of social scientists who in one way or another are linked to NSF.

Outsiders may believe that these professionals have not been faring badly in the division of NSF's money and esteem, but, with Congressional sniping on the increase, they feel otherwise. One of them, Gardner Lindzey, who is a psychologist and vice president and dean of graduate

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studies at the University of Texas, probably spoke for many of his colleagues, when he said that the appointment was "definitely a vote of confidence on the part of the Director of NSF and the National Science Board in the social and behavioral sciences."

If that is so, confidence has been a long time coming and it is still none too secure, particularly where Congress is concerned. One social science staffer at NSF summed it up not long ago, saying the social sciences still "lack widespread and wholly enthusiastic acceptance. We have a long way to go to meet the respect and status accorded other disciplines."

Atkinson isn't expected to change the stepchild view of social science traditionally held by some members of the scientific community and Congress, but it is hoped that he will generate increased understanding of the nature, possibilities and limitations of social science research both within the Foundation and on Capitol Hill. Although the past few years have seen guarded growth in NSF funding for social and behavioral research, the disciplines, ranging from psychology to geography and political science, still suffer from a curious blend of assumptions and expectations among friends and detractors alike.

Under the circumstances, Atkinson should fit the bill for scientists and Congress. He comes with the right credentials from the right places. He is a member of the National Academy of Sciences, a veteran of academic administration as assistant dean of the School of Humanities and Sciences at Stanford and ex-chairman of the psychology department, and has filled important posts in the American Psychological Association.

More significantly, however, Atkinson has the reputation of a top-flight scientist whose research interests span basic research in memory and learning and the application of computers to instruction. Campbell describes Atkinson as representing "hard-headed quantitative psychology," and another colleague states "he's definitely connected with an emphasis on the application of behavioral science knowledge in relevant ways."

Although Atkinson is not coming to NSF as a social science ambassador, neither he nor his colleagues discount

the symbolic significance of the appointment; he is the only strictly academic social scientist to be named to such a high NSF post.

John T. Wilson, a psychologist who is now acting President of the University of Chicago, held the NSF deputy director job from 1963 to 1968 as part of a long career in government. Wilson's successor, Raymond L. Bisplinghoff, now chancellor of the University of Missouri at Rolla, came to the job at NSF via the deanship of MIT's School of Engineering and various high-level posts at NASA. Thus, Atkinson's appointment represents the high point of academic social science in the NSF hierarchy. And it comes at a time of sharpened Congressional criticism of NSF's social science programs.

Until the late sixties, the NSF social science research activity was modest. A social science research program was started in 1956, followed by an Office of Social Science in 1959 and the Social Science Division in 1960. But it wasn't until the 1968 Congressionally mandated reorganization of

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Proxmire Snipes at NSF

Senator William Proxmire (D-Wisc) has launched an offensive against the budget of the National Science Foundation by employing the time-honored tactic of ridiculing research projects with funny or trivial-sounding titles. Though many other Congressmen and Senators have discovered an easy entree into the newspaper columns by sending out press releases drawing attention to alleged waste in government-supported science programs, Proxmire's attacks are of more than passing interest since he is chairman of the appropriations subcommittee which deals with NSF's budget.

In the past week, Proxmire has denounced two such projects, though for different reasons. First, he singled out an \$84,000 project for the study of romantic love. Noting that "Right at the top of things we don't want to know is why a man falls in love with a woman and vice versa," Proxmire suggested that NSF should "get out of the love racket". That was a sure-fire for the newspaper columns.

More important, Proxmire has also denounced an NSF grant to an MIT program which supports the development of innovations by college students. Proxmire's chief concern is that though the federal government has supported the program to the tune of \$1.2 million, 65 per cent of the royalties from the inventions go to MIT and the rest goes to the student inventors.

"The funding of this project by the NSF is just further indication that NSF's charter is too broad, its management too weak, and most importantly, its budget too fat," Proxmire stated. Further sniping can be anticipated when Proxmire's appropriations subcommittee issues its verdict on the budget.

... At a Difficult Time for the Social Sciences

NSF that explicit permission to fund social science research was written into the law. The specific words "social sciences" were inserted in the sequence of research areas NSF was authorized to fund. Previously, the social sciences had been included in the category of "other sciences."

It was about this time that some members of Congress thought social science was getting such short shrift at the Foundation that they proposed setting up a parallel National Social Science Foundation. The chief proponents of the idea, Senator Hubert Humphrey and former Democratic Senator Fred Harris from Oklahoma, had a hard time, however, scraping up support for the idea even among social scientists themselves. The fear among many was that under the arrangement social science disciplines would continue to be regarded as fugitive fields by mainstream scientists.

Although the reorganization act for NSF gave social science more visibility and the promise of more funds, Congress was obviously a bit edgy. A Senate committee report specifically stated that Congress' intent was by no means to direct a disproportionate amount of total NSF support for the social sciences, but to provide "adequate" support. A House report went even further in warning of excessive support. The inclusion of the social sciences was merely "to insure that an adequate effort is made to permit advancement in these scientific areas, which, while still relatively primitive, are extremely important to human welfare." In a slightly less nervous vein, the report noted that "if they are not 'sciences' according to strict definition, they may nonetheless be approached by scientific methods of research and their potential value

is... perhaps as great as any of the acknowledged categories of science or technology."

In FY 1968, the social science division had \$15.4 million to spend on research. At the time, almost all social science research funded by the Foundation was housed in the division. By FY 1974, the division spent about \$26 million out of a \$45-million total for social and behavioral science, and social science totaled roughly 12 per cent of NSF's research budget. NSF's program of Research Applied to National Needs (RANN) was supporting some social research, with other grants coming from such programs as exploratory research and psychobiology. However increased growth introduced new problems.

An example was the relationship between academic social scientists and the early RANN program, which had a Division of Social Systems and Human Resources under economist Harvey Averch. The money was ample — \$12 million in FY 1972 — and the individual grants were big — some awards went as high as \$1.5 million or more. But many academics were less-than-enthusiastic takers. RANN was to play matchmaker between social-problem researchers and policy makers, but as far as many social scientists were concerned, the marriage was shakey from the start.

The major complaints concerned the pressures for short-term results from policy-relevant projects tailored to the research needs of various government agencies. There were definitional problems with "relevance," and researchers reported that representatives of Government departments on RANN's interagency consultant panel only

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Medal Giving Time at the Besieged Foundation

Besieged bastions frequently find psychological uplift by awarding decorations for meritorious performance by some of their more battle-scarred troopers. Which may explain why the National Science Foundation — currently the target of opportunism for several publicity-mongering congressmen — has chosen this time to bestow rare honors on some of its senior staff.

Thus, at an awards ceremony on March 5, NSF Director H. Guyford Stever presented the Foundation's Distinguished Service Award to Alfred J. Eggers Jr., chief of the program of Research Applied to National Needs (RANN), and Thomas E. Jenkins, former assistant director for administration, who left last year for the University of California. The award, which is the highest conferred by NSF, has been presented to only 11 other persons in the 25-year history of the Foundation. Eggers and Jenkins each received a gold medal and certificate. In addition, NSF's second highest honor, the Meritorious Service Award, a silver medal and certificate, was

presented to nine staff members.

While Congressional critics have been assailing NSF for failure to be more relevant in its research, the certificate accompanying Eggers' award praised him for "creative leadership in proving that the concepts on which the Research Applied to National Needs program were founded are sound and that major contributions to the national well-being can be stimulated through the applied research activity of the National Science Foundation."

Jenkins' certificate cited him as "one of the visionaries in recent times who contributed to the infusion of modern innovative administrative and managerial concepts and techniques to Foundation operations."

The other staff members who were honored are: Paul P. Craig, Jerome H. Fregeau, Richard J. Green, Walton M. Hudson, Elizabeth S. Hunt, Mary K. Johdre, John W. Mehl, William E. Morrell, and Howard Tihila.

Congress Rejects Ford Bid to Cut NIH Funds

The machinery adopted by Congress to curtail the Nixon Administration's penchant for impounding appropriated funds is about to ensure delivery of a large dollop of money to NIH, much against the wishes of the Ford Administration.

Back in January, as part of a half-hearted drive to hold down inflation, President Ford asked Congress for permission not to spend some \$1.25 billion in appropriated funds, including \$351 million that he wanted to axe from NIH's FY 1975 budget (SGR Vol. V No 4).

In less complicated times, before Nixon's excesses forced Congress to regain control of the federal government's pursestrings, the Administration would

simply have impounded the money. But under the new machinery, the President must ask Congress to approve any withholding of appropriated funds, and unless approval is specifically given within 45 days, the request is automatically denied. The deadline for approving Ford's request is March 17.

Since Congress is always more generous than the Administration toward NIH, and since the proposed budget reductions would have bitten deeply into cherished programs, Congressional approval was not expected. It was therefore no surprise when, on March 10, the House told Ford he could withhold only \$16.5 million of the \$1.25 billion he had proposed, and furthermore, the House told him to keep his hands off NIH's budget entirely. The Senate Appropriations Committee has approved a similar bill, but with the March 17 deadline looming, it makes little difference whether or not the full Senate passes it.

The upshot will be that, barring any last-ditch delaying tactics by the Administration, the full amount approved by Congress back in December for NIH will become available in the last three months of the current fiscal year.

In view of that delay, a remark made last week by Rep. Robert Drinan (D-Mass.) is noteworthy. Drinan, whose district includes Massachusetts General Hospital and other health research establishments in the Boston area, pointed out that the anti-impoundment machinery has been used effectively by the Administration to put off expenditure of Congressionally appropriated funds, and he asked whether Ford could now propose that a lesser sum be withheld, thereby ensuring another 45 days' delay. Rep. George Mahon (D-Tex.), chairman of the House Appropriations Committee, said that the law "is not absolutely clear" on the matter.

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vaguely knew what they wanted in research goods.

Some researchers cleared the hurdles. But, for others, the demands were just a bit beyond the state of the art. One well-known sociologist described a meeting in 1972 between researchers and representatives of federal "customer" agencies: "Some tortured researchers were trying to get out of a HUD (Housing and Urban Development) representative a clear notion of HUD's policies on new towns. The HUD representative ran around in circles trying not to be specific while NSF representatives were faulting the researchers for not meeting the needs of HUD."

Senator Proxmire's view is that NSF has exceeded what Congress intended when it specifically mandated NSF support for social science. His criticisms have taken such form as, "The American taxpayer would get a better return on his money if he put it into White Russian bonds." He isn't against all social science, but he feels some projects should be funded by other agencies, that many are not "scientific" and that some shouldn't be funded at all.

He sharply criticized construction funds for a facility for research on language behavior in the chimpanzee and drew an angry response from David Premack, a primate researcher, who outlined the promise of chimp language research for language-deficient children and global aphasics.

More recently, he took out after a grant supporting theoretical study of psychological dependency, particularly such intense positive attachments as love. Even if NSF could come up with the hows and whys of love, which Proxmire doubted, he said "I don't want the answer." In philosophical moods, social scientists view Proxmire as doing his job in monitoring the use of taxpayers' money. However, many regard his hit-and-run selections for waste of the month as a product of scanning awards lists for funny grant titles, rather than a result of studying research projects to determine their merit. In short, they feel misunderstood.

That's where Atkinson comes in. —P.M.

ERDA Bucks Suburban Tide

That off-again-on-again drive to disperse the federal bureaucracy from the congestion of downtown Washington has run through another cycle with the decision to locate the headquarters of the Energy Research and Development Administration (ERDA) plunk at the foot of Capitol Hill. The address, 20 Mass. Ave. N.W., Washington, DC 20545, is that of a brand new office building to be occupied by some 800 ERDA employees, most of them now scattered around the Washington area, with about 150 still to be hired.

The old AEC headquarters in faraway Germantown, Md., has been bequeathed to ERDA and will house a variety of activities, among them reactor research and development, military applications, and some biomedical and safety programs.

A New Scheme for Getting Rid of AF Herbicide Glut

The US Air Force's five-year effort to get rid of some 2.3-million gallons of highly contaminated herbicide left over from the Vietnam War has taken another strange turn. Independently, the Department of Interior has announced that it has developed a simple process to decontaminate the stuff so that it could be sold commercially in the United States. Interior has even filed for a patent for the process.

The herbicide, called Agent Orange, is a mixture of 2,4-D and 2,4,5-T, both of which are sold in the US for agricultural purposes. But the problem with Agent Orange is that it contains high levels of dioxin, an extremely toxic and teratogenic chemical.

After a spate of rumors that the Air Force was quietly

planning to sell the herbicide abroad — notably to Portugal for use against in Mozambique, and later to various Latin American governments — a plan was finally developed to incinerate it at high temperatures aboard a specially equipped barge in the middle of the Gulf of Mexico. The Air Force has applied to EPA for a permit for the operation, which EPA is now considering.

But in the meantime, the Air Force has been looking into the possibility of making Agent Orange acceptable for sale in the US, a plan which would require separating the two herbicides and reducing the dioxin contaminant to below the level permitted by the EPA. A chemical company in New Jersey is believed to be interested in reformulating the stuff, and Interior's new process may provide the necessary decontamination.

According to Interior's announcement, the process simply consists of passing Agent Orange through filters of coconut charcoal. Two separate tests have indicated that more than 99 per cent of the dioxin is removed by the filters, and that it will not wash off, even with organic solvents.

One expert on the matter told SGR, however, that the idea of filtering out dioxin with charcoal has been around for a long time, and he guessed that if the process really works that well, Dow Chemical Company — which manufactures 2,4,5-T for agricultural use — would have been using it already. Nevertheless, he said he is "willing to believe" that coconut charcoal is more effective than other charcoals in removing dioxin, but added that even if it gets rid of all the contaminant, there is still a problem because 2,4,5-T may itself be teratogenic.

Be that as it may, EPA has made no decision on the Air Force's request for a permit to incinerate Agent Orange, and is awaiting further developments.

Another Energy Study Coming

Yet another massive document will soon join the mammoth inventory of government-produced reports on energy research and development.

Last week, the Energy Research and Development Administration (ERDA) announced that it has signed a contract with TRW Inc. and Mitre Corporation to help in "preparing a comprehensive energy research and development plan and program for presentation to Congress by June 30 1975."

The report, mandated by the Federal Non-nuclear Energy Research and Development Act — a measure passed late last year in an effort to ensure that ERDA's non-nuclear programs are not swamped by the activities carried over from the Atomic Energy Commission — is designed to provide a blueprint for ERDA's activities. And, to further add to the pile, ERDA must update it every January 1.

The report will follow the five-year R&D plan drawn up in late 1973 by then-AEC Chairperson Dixy Lee Ray, the analysis of Project Independence prepared early last year by the National Academy of Engineering, the report of the Ford Foundation's Energy Policy Project, the massive Project Independence Blueprint drawn up last November by the Federal Energy Agency, and sundry reports which have emanated from Capitol Hill.

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The Curious Case of the Science-Policy Invite List

Every month, about 40 persons drawn from participants and onlookers in Washington science-policy affairs meet at the invitation of George Washington University for drinks, a speech, dinner and discussion.

The meetings, sponsored by the University's Program in Science, Technology, and Public Policy, are paid for by a grant from the National Science Foundation's Science and Technology Policy Office. Recent speakers have included Lewis Branscomb, chief scientist of IBM, and Edward E. David Jr., former White House science adviser.

Revelations of any importance are indeed rare at these proceedings, but the sessions do, in fact, provide a useful meeting ground for people of common interest who frequently find it difficult to get together. Considering, however, the diversity of the science-policy community in Washington, what is indeed curious is the homogeneity of the participants, among whom, let it be acknowledged, SGR representatives are always included. Mostly they're middle-level government and industry technocrats, with a sprinkling of academics, journalists and resident lobbyists.

However, since we never have seen representatives of the Federation of American Scientists, the Center for Science in the Public Interest, or various Nader organizations, we inquired. And we came up with curious indications of coercion affecting the drawing up of the invitation list.

According to university sources, a representative of one of the above organizations was once on the list, but was scratched at the order of Russell Drew, director of the Science and Technology Policy Office. The source quoted Drew as saying, "Oh, you don't want him," the implication being that he was a nuisance of a boatocker.

Drew flatly denies the allegation, though he told SGR, "We don't dictate the list, and we don't ever see it until all the invitations are sent out, but we do try to give them the benefit of our experience in defining who's to be invited."

University sources said that Drew is "advised on who's invited and we ask for recommendations."

The situation is obviously ambiguous, but the failure to include the "other" science policy community in these

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ERDA Fills Some Top Jobs

Nominations for some of those long-unfilled top posts at the Energy Research and Development Administration (ERDA) have begun to trickle in (SGR Vol. V, No. 5).

Robert Fri, former deputy administrator at the Environmental Protection Agency, has been named to ERDA's number two position, that of deputy administrator.

Robert L. Liverman has been named assistant administrator for environment and safety, coming from a like position at the now-dismembered Atomic Energy Commission.

John M. Teem has been nominated to be assistant administrator for solar, geothermal, and advanced energy systems. He formerly was the AEC's assistant general manager for physical research.

The posts are filled by presidential appointment and require Senate confirmation, which is expected to be without difficulty. Still to be filled are four other presidential appointments at ERDA — assistant administrators for nuclear energy, fossil energy, conservation, and national security.

A post that is filled at the discretion of ERDA Administrator Robert C. Seamans Jr., that of assistant administrator for planning and analysis, has been assigned to Roger W. A. Legassie, who was deputy director of the AEC's Office of Planning and Analysis.

proceedings is surely a loss for the public interest, in whose behalf the Foundation is subsidizing these sessions. Not surprisingly, most of the discussions are contained within a narrow band of ideology and concern, which is probably the reason why it's a tossup as to which is less flavorful, the dinner or the discussion.

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